

**Commonwealth of Kentucky**  
**Division for Air Quality**  
***EXECUTIVE SUMMARY***

FINAL

Title V, Construction / Operating

Permit: V-08-006

Owensboro Grain Company LLC

Owensboro, KY 42302

Date 12/10/2008

Reviewer: Chris Leslie

SOURCE ID: 21-059-00039

AGENCY INTEREST: 938

ACTIVITY: APE20050004

**SOURCE DESCRIPTION:**

Owensboro Grain Company, Inc. is a grain processing plant which produces crude vegetable oil. The source uses Hexane to strip off the crude oil from the meal of the grain. The meal is sold after the oil has been removed and the oil is sent elsewhere to be refined into table oils, margarine, and other edible fats and oils.

Initial Permit – The initial permit, O-79-301, was issued to the source on June 29, 1979 for the operation of a grain handling and soybean processing plant.

C-81-70 – This permit was issued on August 24, 1981. The permit is for the expansion of the operations, the addition of a coal fired boiler, and the addition of a soybean oil extraction plant.

O-82-210 – This permit was issued on August 22, 1982. The permit is a renewal for O-79-301.

O-83-137 – This permit was issued on July 16, 1983. The permit is for the operation of the entire source, including the new boiler.

C-84-173 – This permit was issued on October 18, 1984. The permit is for the addition of a grain dryer and soybean cleaning process unit.

O-87-01 – This permit was issued on February 3, 1987. The permit is an operating permit and includes all the equipment constructed with permit C-81-70.

C-87-049 – This permit was issued on May 7, 1987. The permit is for the reconstruction and addition of processing equipment and a production rate increase.

C-89-029 – This permit was issued on February 24, 1989. The permit is for the replacement of a barge unloading facility.

C-92-103 – This permit was issued on August 13, 1992. The permit is for the addition of a barge loadout and conveying system.

S-95-092 – This permit was issued on May 15, 1995. The permit is for the addition and operation of a soybean cleaning system.

S-96-229 – This permit was issued on August 9, 1996. The permit is for the addition of conveyors, elevator legs, soybean storage tanks and four soybean/meal storage tanks.

S-97-030 – This permit was issued on April 3, 1997. The permit is for the addition of a soybean meal storage tank.

Letter 1 – The source was issued a letter on July 6, 2000 for the installation of an enclosed conveyor to replace existing equipment. A determination was made that State Regulation 63:010, Fugitive emissions applied to the conveyor. A No Permit Required letter was sent to the source. The log number for this action is I-1910.

An application was received on October 6, 2005, and the company wants to construct a new storage bin with cyclone, two elevator legs and a truck loadout system that is baghouse controlled, they also want to change the company and source name to Owensboro Grain Company LLC

An application was received on August 6, 2007. The existing coal-fired boiler has been experiencing cracking around tube holes in the steam drum, resulting in the plant shutting down for repairs. They are planning to replace the drum with an identical unit. The boiler drum replacement was reviewed for applicability of PSD. This is viewed as a modification as the boiler drum replacement is a physical change. The company has used 2005 and 2006 emissions to calculate the past actual emissions. The past actual emissions for SO<sub>2</sub> were submitted as 550.9295 tons/yr. The company has also submitted the projected actual emissions. The projected emissions for SO<sub>2</sub> were submitted as 590.187 tons/yr. The emissions increase was calculated using actual vs. projected actual method. The increases of all the criteria pollutants are less than the respective significant emission levels. However the emission increase for SO<sub>2</sub> was projected to be 39.257 tons/yr. This increase is less than the 40 tons/yr of significant emission level under the PSD regulations. However, pursuant to 401 KAR 51:017, Section 16(5)(a), there is a reasonable possibility that this project that is not part of a major modification may result in significant emissions increase for SO<sub>2</sub>. The monitoring and recordkeeping requirements under 401 KAR 51:017, Section 16 will apply. The permit is modified to include these monitoring and recordkeeping requirements to show that the SO<sub>2</sub> emissions will not go above 40 tons/yr. The significant levels are 40 tons for SO<sub>2</sub> and NO<sub>x</sub>; 15 tons for PM<sub>10</sub>; 25 tons for PM; and 100 tons for CO. The source is also proposing the addition of a second backup boiler (natural gas fired) rated at 158 mmBtu to be used for emergency backup.

## **PUBLIC AND AFFECTED STATE REVIEW:**

Affected states (Indiana) were notified of the issuance of the draft permit on August 25, 2008 via e-mail. On June 20, 2008, the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in the *Messenger - Inquirer* in Owensboro, Kentucky. The public comment period expired 30 days from the date of publication.

Comments were received from Owensboro Grain LLC on July 21, 2008. Changes were made to the permit as a result of the comments received; however the Division has concluded that the proposed operation will comply with all air quality regulations and requirements. Therefore, the Division made a final determination to issue a proposed permit. A final permit is being issued now that the U.S. EPA's 45-day review has ended on 12/08/2008.

## **U.S. EPA REVIEW:**

The U.S. EPA was notified of the issuance of the proposed permit on October 24, 2008 via e-mail. The comment period expired 45 days from the date of e-mail. Comments were received from U.S. EPA's Region IV on December 3, 2008. Attachment C lists the comments received, the Division's response to each comment, and a detailed explanation of the changes made to the permit. Minor changes were made to the permit as a result of the comments received. The permit is now being issued final.